

WHAT IS CLAIMED IS

1. A timepiece including a barrel, a spring housed in said barrel, time display members mechanically coupled to said barrel, an electric energy generator also coupled to said barrel, and a regulator circuit for enslaving the frequency of said generator to a reference frequency, said regulator circuit including for this purpose  
5 switching means arranged for electrically braking said generator during braking periods, when said regulator circuit detects that the frequency of said generator is higher than the reference frequency, wherein said generator controls actuating means of an analogue power reserve member, via an electric quantity transmitted by electric coupling between said actuating means and said generator, during said braking  
10 periods.
2. The timepiece according to claim 1, wherein said actuating means of said power reserve display member are arranged so as to move said display member from a first position corresponding to the spring being wound to a second position corresponding to the spring being let down.
- 15 3. The timepiece according to claim 1, wherein the generator includes at least one coil and wherein said actuating means include an additional coil, said electric coupling between said actuating means and said generator being achieved by said switching means arranged for electrically coupling said coils at the time of said braking periods.
- 20 4. The timepiece according to claim 3, wherein said electric quantity is alternating, and wherein said switching means are switched so as to transmit a rectified electric quantity to said additional coil.
5. The timepiece according to claim 3, wherein the actuating means include an electrically controlled actuator formed by a stator including said additional coil and  
25 by a magnetised rotor, the latter being magnetically coupled to the stator and mechanically coupled to said analogue power reserve display member.
6. The timepiece according to claim 5, wherein the stator has a circular cavity on which are arranged two necks arranged such that the useful angle of the rotor corresponding to its rotating movement is approximately 60°.
- 30 7. The timepiece according to claim 5, wherein said rotor is coupled to said analogue power reserve display member via a gear reduction wheel set including a gear reduction wheel having a hollowed sector and wherein a stop member is arranged in said sector so as to limit the rotational angle of said wheel.
8. The timepiece according to claim 1, wherein a viscous oil is used to  
35 obtain a stable indication of the power reserve by said display member.

9. The timepiece according to claim 1, wherein said analogue power reserve display member also provides an indication as to the aging of oils of said timepiece, the first position being slightly offset.

10. A timepiece including a barrel, a spring housed in said barrel, time  
5 display members mechanically coupled to said barrel, an electric energy generator which includes at least one coil and which is also coupled to said barrel, and a regulator circuit for enslaving the frequency of said generator to a reference frequency, said regulator circuit including for this purpose switching means arranged for  
10 electrically braking said generator during braking periods, when said regulator circuit detects that the frequency of said generator is higher than the reference frequency, wherein said generator controls actuating means of an analogue power reserve member, via an electric quantity transmitted by electric coupling between an additional coil of said actuating means and said at least one coil of said generator, said electric coupling being achieved between said coils by said switching means at the time of  
15 said braking periods.

11. A timepiece including a barrel, a spring housed in said barrel, time  
display members mechanically coupled to said barrel, an electric energy generator which includes at least one coil and which is also coupled to said barrel, and a  
20 regulator circuit for enslaving the frequency of said generator to a reference frequency, said regulator circuit including for this purpose switching means arranged for electrically braking said generator during braking periods, when said regulator circuit detects that the frequency of said generator is higher than the reference frequency, wherein said generator controls actuating means of an analogue power reserve  
25 member, via an alternating electric quantity transmitted by electric coupling between an additional coil of said actuating means and said at least one coil of said generator, said electric coupling being achieved between said coils by said switching means at the time of said braking periods so as to transmit a rectified electric quantity to said additional coil.